

Patent Claims

1. A method for producing a toothbrush comprising a handle part and a brush head including a plurality of tufts of bristles, wherein plastified material is injected into a plurality of mold cavities configured in a joint tool for shaping structural parts with an identical geometry, **characterized in** that different components of the plastified material are supplied via separate channels to individual mold cavities.
2. The method according to claim 1, **characterized in** that the plastified material is kept in a liquid state in the channels.
- a 3. The method according to ^{claim 1} ~~claim 1 or 2~~, **characterized in** that one component is injected into a plurality of mold cavities.
- a 4. The method according to ^{claim 1} ~~at least one of the preceding claims~~, **characterized in** that a plurality of basic bodies are shaped in a joint tool in a first molding step, and that the basic bodies are over-molded in a second molding step.
5. The method according to claim 4, **characterized in** that the different components of the plastified material are supplied in the second molding step.
- a 6. The method according to ^{claim 4} ~~claim 4 or 5~~, **characterized in** that in the first molding step different components of plastified material are supplied via separate channels to the mold cavities for shaping the basic bodies.
- a 7. The method according to ^{claim 4} ~~at least one of claims 4 to 6~~, **characterized in** that the first and second molding steps are carried out in the same tool.

8. The method according to ^{claim 4} ~~at least one of claims 4 to 7~~, **characterized in that** at least some of the tufts of bristles are connected in the second molding step to the basic body by over-molding the tufts of bristles and/or a bristle tuft holding portion formed, in particular, in the first molding step on the tuft of bristles.
9. A device for producing a toothbrush comprising a handle part and a brush head including a plurality of tufts of bristles, in particular ^{claim 1} ~~according to at least one of claims 1 to 8~~, comprising an injection molding tool having formed therein a plurality of identical mold cavities, **characterized in that** individual mold cavities (4a; 4b; 4c) are assigned to different plastifying units (1a; 1b; 1c).
10. The device according to claim 9, **characterized in that** a plurality of first mold cavities (4a) are provided for shaping basic bodies of an identical geometry and a number of second mold cavities (4b; 4c) corresponding to the number of first mold cavities are provided that are made larger than the first mold cavities (4a).
11. The device according to ^{claim 9} ~~claim 9 or 10~~, **characterized in that** different plastifying units (1b; 1c) are assigned to individual ones of the second mold cavities (4b; 4c).
12. The device according to ^{claim 9} ~~at least one of claims 9 to 11~~, **characterized in that** there is provided at least one shut-off device (5) by which individual or several mold cavities (4a; 4b) can be brought into flow communication with a plastifying unit (1a; 1b).

13. The device according to claim 12, **characterized in that** different mold cavities can selectively be brought by the shut-off device (5) into flow communication with different plastifying units (1b; 1c) or with a joint plastifying unit (1a; 1b).

14. The device according to ~~claim 12 or 13~~, characterized in that a shut-off device (5) is assigned to mold cavities of an identical design.

[illegible]